



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Daczko, et al. Docket No.: MBC-0471
Serial No: 10/749,780 Examiner: Paul D. Marcantoni
Filed: December 30, 2003 Group No.: 1755
For: High Early-Strength Fiber Reinforced Cementitious Composition

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Joan R. Barris
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(signature of person mailing paper)

11-9-2004
(date)

DECLARATION UNDER 37 C.F.R. §1.132

Sir:

I, Joseph A. Daczko, hereby declare that:

1. I am a resident of Mantua Township in the State of Ohio.
2. I am a Group Manager of Concrete Technology with Degussa Admixtures, Inc. and have been employed by them and their corporate predecessors for 11 years as a member of its Research and Development Department. I have specialized in Concrete Application Research while at Degussa Admixtures, Inc. and its predecessors.
3. As a Group Manager of Concrete Technology I am familiar with the subject cementitious member and its method of making as claimed in the above-referenced patent application, U.S. Serial No. 10/749,780. The present cementitious composition is directed for use in high early-strength reinforced pre-cast or cast in place cementitious members. More particularly, the cementitious compositions contain a combination of a polycarboxylate high range water reducing dispersant and structural synthetic fibers.
4. What is novel about this combination is that the increased strength of the present reinforced high early-strength cementitious member is not produced simply by the fibers

but rather by a combination of strength generating ingredients, the structural synthetic fibers, hydraulic cement and polycarboxylate dispersant, allowing for the production of thinner, lightweight sections.

5. The combination allows for the replacement of steel fibers and steel rebar by structural synthetic fibers in cementitious members which prevent the potential for corrosion and permit reduction of the size of the cementitious members.
6. An advantage of not using steel rebar support is the reduction of cementitious member sizes, leading to reduced deadload on the structure, allowing for less or lower strength supporting cementitious members to be used, a reduced volume of cementitious composition needed to cast the smaller cementitious members, a reduced weight of the cementitious members cast, and, if they are pre-cast pieces, freight costs can be significantly reduced, coupled with reduced crane size for placing cementitious members on the structure.
7. I believe that the present combination was not obvious to one skilled in the art, as that until the invention and use of the present combination, there has been an unfulfilled need in the industry for a fiber reinforced cementitious mixture without metal reinforcement that developed a high level strength within about 24 hours.
8. It is therefore my opinion that to date no one else in the industry has been able to successfully develop a high early-strength reinforced pre-cast or cast in place cementitious member which is able to reliably provide flexural strength of at least 1,400 pounds per square inch and compressive strength of at least 7,500 pounds per square inch within about 24 hours after placing the cementitious composition, unset but hydrated, in a mold.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United State Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Joseph A. Daczko
Joseph A. Daczko

11-9-04
Date